

FUNDING INFORMATION

Amount Obligated by this Amendment: \$225,441
Total Intended Award Amount: \$425,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$225,441
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	\$101,566
2026	\$97,993

PROJECT PERSONNEL**Principal Investigator:**

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT AND
 FELLOWS OF HARVARD
 COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2312666	Y	[REDACTED]	Arizona Board of Regents Arizona State University
2312667	N	[REDACTED]	Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION**Managing Grants****Official (Primary Contact)**

Name: Cartia Brown-Morgan

Email:
 cbrownmo@nsf.gov

Phone: (703) 292-8709

Awarding Official

Name: Jannele L. Gosey
Email: jgosey@nsf.gov

Managing Program Officer

Name: Alfred Hero
Email: ahero@nsf.gov
Phone:

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended

(42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rte.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-631 Computer and Information Science and Engineering (CISE): Core Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	2.00
Senior Personnel Calendar Months	2.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$29,352
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	\$78,329
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0

Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$107,681
C. Fringe Benefits	\$6,486
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$114,167
D. Equipment	\$0
E. Travel	
Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$32,499
<i>Total Other Direct Costs (G)</i>	\$32,499
H. Total Direct Costs (A Through G)	\$146,666
I. Indirect Costs*	\$78,775
J. Total Direct and Indirect Costs (H + I)	\$225,441
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$225,441
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Total Modified Direct Costs	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2313084

Managing Division Abbreviation: CCF

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 06/23/2023

Amendment Number: 000

Proposal Number: 2313084

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2313084

Award Instrument: Standard Grant

Award Date: 06/23/2023

Award Period of Performance: Start Date: 07/01/2023 End Date: 06/30/2026

Project Title: Collaborative Research: FET: Medium: Efficient Compilation for Dynamically Reconfigurable Atom Arrays

Managing Division Abbreviation: CCF

Research and Development Award: Yes

Funding Opportunity: NSF 22-631 Computer and Information Science and Engineering (CISE): Core Programs

Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (Predominant source of funding for SEFA reporting)

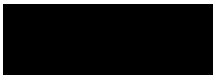
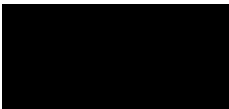
FUNDING INFORMATION

Amount Obligated by this Amendment: \$450,000
Total Intended Award Amount: \$450,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$450,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: 	Email: 	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
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COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2313083	Y		University of California, Los Angeles
2313084	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants

Official (Primary

Contact)

Name: Sharon D. Glivens

Email:

sglivens@nsf.gov

Phone: (703) 292-7837

Awarding Official

Name: Jannele L. Gosey

Email: jgosey@nsf.gov

Managing Program Officer

Name: Almadena Y. Chtchelkanova

Email: achtchel@nsf.gov

Phone: (703) 292-7498

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-631 Computer and Information Science and Engineering (CISE): Core Programs.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	6.00
Graduate Students Amount	\$203,885
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$203,885

C. Fringe Benefits	\$0
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$203,885
D. Equipment	\$0
E. Travel	
Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$8,638
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$90,837
<i>Total Other Direct Costs (G)</i>	\$99,475
H. Total Direct Costs (A Through G)	\$303,360
I. Indirect Costs*	\$146,640
J. Total Direct and Indirect Costs (H + I)	\$450,000
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$450,000
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC Base	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2315488

Managing Division Abbreviation: SES

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 06/26/2023

Amendment Number: 000

Proposal Number: 2315488

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 05/25/2023.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

AWARD INFORMATION

Award Number (FAIN): 2315488

Award Instrument: Standard Grant

Award Date: 06/26/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: Outsourcing Property Tax Re-Assessments: Empirical Evaluation

Managing Division Abbreviation: SES

Research and Development Award: Yes
Funding Opportunity: PD 98-1320 Economics
Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences
(Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$362,153
Total Intended Award Amount: \$362,153
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$362,153
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: NATIONAL BUREAU OF ECONOMIC RESEARCH INC
co-Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: MASSACHUSETTS INSTITUTE OF TECHNOLOGY

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) Name: Tyffani N. Smith Email: tnsmith@nsf.gov Phone: (703) 292-7046	Awarding Official Name: Willie M. Powell Email: wpowell@nsf.gov	Managing Program Officer Name: Kwabena Gyimah-Brempong Email: kgyimahb@nsf.gov Phone: (703) 292-7466
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GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	0.50
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$21,661
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	6.00
Other Professionals Calendar Months	5.07
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$33,267
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	\$33,850
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$88,778
C. Fringe Benefits	\$16,535
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$105,313
D. Equipment	\$0

E. Travel	
Domestic	\$0
International	\$14,795
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$2,000
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$138,541
Other	\$0
<i>Total Other Direct Costs (G)</i>	\$140,541
H. Total Direct Costs (A Through G)	\$260,649
I. Indirect Costs*	\$101,504
J. Total Direct and Indirect Costs (H + I)	\$362,153
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$362,153
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
Harvard University F&A Rate for FY23 is 69%	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2315533

Managing Division Abbreviation: SES

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 08/11/2023

Amendment Number: 000

Proposal Number: 2315533

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/21/2023.

AWARD INFORMATION

Award Number (FAIN): 2315533

Award Instrument: Standard Grant

Award Date: 08/11/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: Collaborative Research: The Economics of Port Infrastructure

Managing Division Abbreviation: SES

Research and Development Award: Yes

Funding Opportunity: PD 98-1320 Economics

Assistance Listing Number(s) and Name(s): 47.075 Social, Behavioral, and Economic Sciences
(Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$283,999

Total Intended Award Amount: \$283,999
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$283,999
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2315533	Y	[REDACTED]	Harvard College, President & Fellows of Harvard University
2315534	N	[REDACTED]	New York University
2315535	N	[REDACTED]	Boston College

NSF CONTACT INFORMATION

Managing Grants

Official (Primary Contact)
Name: Tyffani N. Smith
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Awarding Official
Name: Tyffani N. Smith
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Managing Program Officer
Name: Nancy A Lutz
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Phone: (703) 292-7280

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	3.00
Senior Personnel Calendar Months	4.38
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$110,327
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	\$34,000
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$144,327
C. Fringe Benefits	\$23,720
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$168,047
D. Equipment	\$0

E. Travel	
Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$0
<i>Total Other Direct Costs (G)</i>	\$0
H. Total Direct Costs (A Through G)	\$168,047
I. Indirect Costs*	\$115,952
J. Total Direct and Indirect Costs (H + I)	\$283,999
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$283,999
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
IDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2320265

Managing Division Abbreviation: ECCS

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 08/17/2023

Amendment Number: 000

Proposal Number: 2320265

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/07/2023.

The grantee may allow access to the instrumentation to non-Federal outside organizations for a fee, if excess time is available on the equipment. However, the grantee shall not use this equipment to provide services to such organizations for a fee that is less than private companies charge for equivalent services. In addition, the users as outlined in the proposal must have the highest priority when allocating instrument access time.

AWARD INFORMATION

Award Number (FAIN): 2320265

Award Instrument: Standard Grant

Award Date: 08/17/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: Equipment: MRI: Track #1 Acquisition of Photonic Wirebonding Tool for Quantum and Nanophotonics

Managing Division Abbreviation: ECCS

Research and Development Award: Yes

Funding Opportunity: NSF 23-519 Major Research Instrumentation Program:

Assistance Listing Number(s) and Name(s): 47.083 Office of Integrative Activities (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$999,420
Total Intended Award Amount: \$999,420
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$999,420
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

co-Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
(Primary Contact)

Name: Daniel P McEnrue

Email: dpmcenru@nsf.gov

Phone: (703) 292-8386

Awarding Official

Name: Daniel P McEnrue

Email: dpmcenru@nsf.gov

Managing Program Officer

Name: Rosa Lukaszew

Email: rlukasze@nsf.gov

Phone: (703) 292-8103

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-519 Major Research Instrumentation Program:.

BUDGET**A. Senior Personnel**

Senior Personnel Count	6.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$0

B. Other Personnel**Post Doctoral Scholars**

Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0

Other Professionals

Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0

Graduate Students

Graduate Students Count	0.00
Graduate Students Amount	\$0

Undergraduate Students

Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0

Secretarial - Clerical

Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0

Other

Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$0

C. Fringe Benefits

<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$0
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D. Equipment

	\$800,000
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E. Travel	
Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$12,000
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$106,000
<i>Total Other Direct Costs (G)</i>	\$118,000
H. Total Direct Costs (A Through G)	\$918,000
I. Indirect Costs*	\$81,420
J. Total Direct and Indirect Costs (H + I)	\$999,420
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$999,420
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
F&A	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2321651

Managing Division Abbreviation: DEB

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 08/03/2023

Amendment Number: 000

Proposal Number: 2321651

Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2321651

Award Instrument: Continuing Grant

Award Date: 08/03/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: Collaborative Research: Ideas Lab: Smarter Microbial Observatories for Realtime ExperimentS (SMORES)

Managing Division Abbreviation: DEB

Research and Development Award: Yes

Funding Opportunity: NSF 22-617 Ideas Lab: Engineering Technologies to Advance Underwater Sciences

Assistance Listing Number(s) and Name(s): 47.050 Geosciences (Predominant source of funding for SEFA reporting), 47.041 Engineering Grants, 47.074 Biological Sciences

FUNDING INFORMATION

Amount Obligated by this Amendment: \$446,353
Total Intended Award Amount: \$595,184
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$446,353
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	\$50,000
2025	\$98,831

PROJECT PERSONNEL

Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:** PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2321651	Y	[REDACTED]	Harvard College, President & Fellows of Harvard University
2321652	N	[REDACTED]	Rochester Institute of Technology
2321653	N	[REDACTED]	Florida International University
2321654	N	[REDACTED]	University of Georgia Research Foundation, Inc.

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact)
Name: Sharon D. Glivens
Email: sglivens@nsf.gov

Awarding Official Name: Vanessa L. Richardson
Email: vlrichar@nsf.gov

Managing Program Officer Name: Francisco Bilbao Moore
Email: fbmoore@nsf.gov
Phone: (703) 292-5376

Phone: (703) 292-7837

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-617 Ideas Lab: Engineering Technologies to Advance Underwater Sciences.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$28,760
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	1.00
Other Professionals Calendar Months	2.40
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$22,278
Graduate Students	

Graduate Students Count	1.00
Graduate Students Amount	\$16,511
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$67,549
C. Fringe Benefits	\$14,599
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$82,148
D. Equipment	\$290,112
E. Travel	
Domestic	\$2,943
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$7,358
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$0
<i>Total Other Direct Costs (G)</i>	\$7,358
H. Total Direct Costs (A Through G)	\$382,561
I. Indirect Costs*	\$63,792
J. Total Direct and Indirect Costs (H + I)	\$446,353
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$446,353

M. Cost Sharing Proposed Level	\$0
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*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION**Award Notice****Award Number (FAIN):** 2323102**Managing Division Abbreviation:** OCE**Amendment Number:** 000**RECIPIENT INFORMATION****Recipient (Legal Business Name):** PRESIDENT AND FELLOWS OF HARVARD COLLEGE**Recipient Address:** 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369**Official Recipient Email Address:** [REDACTED]**Unique Entity Identifier (UEI):** LN53LCFJFL45**AMENDMENT INFORMATION****Amendment Type:** New Project**Amendment Date:** 08/17/2023**Amendment Number:** 000**Proposal Number:** 2323102**Amendment Description:**

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/13/2023. Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies and procedures to segregate participant support costs.

AWARD INFORMATION**Award Number (FAIN):** 2323102**Award Instrument:** Continuing Grant**Award Date:** 08/17/2023**Award Period of Performance:** Start Date: 01/01/2024 End Date: 12/31/2027**Project Title:** Constructing a 1.5-million-year time series of magmatic and hydrothermal activity at the Juan de Fuca ridge**Managing Division Abbreviation:** OCE**Research and Development Award:** Yes**Funding Opportunity:** PD 17-1620 Marine Geology and Geophysics**Assistance Listing Number(s) and Name(s):** 47.050 Geosciences (Predominant source of funding for

SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$16,900
Total Intended Award Amount: \$255,786
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$16,900
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	\$49,301
2025	\$109,169
2026	\$80,416

PROJECT PERSONNEL

Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

co-Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official

(Primary Contact)

Name: Willie M. Powell

Email: wpowell@nsf.gov

Phone: (703) 292-4583

Awarding Official

Name: Staci Jenkins

Email: sjenkins@nsf.gov

Managing Program Officer

Name: Joseph Carlin

Email: jcarlin@nsf.gov

Phone: (703) 292-8562

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET**A. Senior Personnel**

Senior Personnel Count	2.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$0

B. Other Personnel**Post Doctoral Scholars**

Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0

Other Professionals

Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0

Graduate Students

Graduate Students Count	0.00
Graduate Students Amount	\$0

Undergraduate Students

Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0

Secretarial - Clerical

Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0

Other

Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$0

C. Fringe Benefits

<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$0
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D. Equipment

	\$0
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E. Travel

Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$10,000
<i>Total Other Direct Costs (G)</i>	\$10,000
H. Total Direct Costs (A Through G)	\$10,000
I. Indirect Costs*	\$6,900
J. Total Direct and Indirect Costs (H + I)	\$16,900
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$16,900
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
92922	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2323970

Managing Division Abbreviation: DMR

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 09/15/2023

Amendment Number: 000

Proposal Number: 2323970

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2323970

Award Instrument: Standard Grant

Award Date: 09/15/2023

Award Period of Performance: Start Date: 10/01/2023 End Date: 09/30/2027

Project Title: Collaborative Research: DMREF: Discovery of unconventional superconductors by design

Managing Division Abbreviation: DMR

Research and Development Award: Yes

Funding Opportunity: NSF 23-530 Designing Materials to Revolutionize and Engineer our Future

Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences

(Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$1,500,000
Total Intended Award Amount: \$1,500,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$1,500,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
co-Principal Investigator: [REDACTED]	Email: [REDACTED]	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2323970	Y	[REDACTED]	Harvard College, President & Fellows of Harvard University
2323971	N	[REDACTED]	Arizona Board of Regents Arizona State University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) Name: Elizabeth Gebremedhin Email: egebreme@nsf.gov Phone: (703) 292-4444	Awarding Official Name: Elizabeth Gebremedhin Email: egebreme@nsf.gov	Managing Program Officer Name: John A Schlueter Email: jschluet@nsf.gov Phone: (703) 292-7766
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GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rte.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-530 Designing Materials to Revolutionize and Engineer our Future.

BUDGET

A. Senior Personnel	
Senior Personnel Count	12.00
Senior Personnel Calendar Months	2.64
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$61,464
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	12.00
Graduate Students Amount	\$523,786
Undergraduate Students	

Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$585,250
C. Fringe Benefits	\$13,584
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$598,834
D. Equipment	\$0
E. Travel	
Domestic	\$10,000
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$96,813
Publication Costs	\$10,000
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$255,367
<i>Total Other Direct Costs (G)</i>	\$362,180
H. Total Direct Costs (A Through G)	\$971,014
I. Indirect Costs*	\$528,986
J. Total Direct and Indirect Costs (H + I)	\$1,500,000
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$1,500,000
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2324862

Managing Division Abbreviation: CCF

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 09/18/2023

Amendment Number: 000

Proposal Number: 2324862

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above.

AWARD INFORMATION

Award Number (FAIN): 2324862

Award Instrument: Standard Grant

Award Date: 09/18/2023

Award Period of Performance: Start Date: 10/01/2023 End Date: 09/30/2027

Project Title: Collaborative Research: DESC: Type 2: Delphi: Life-time aware design frameworks for sustainable edge devices

Managing Division Abbreviation: CCF

Research and Development Award: Yes

Funding Opportunity: NSF 23-532 Design for Environmental Sustainability in Computing

Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$500,000
Total Intended Award Amount: \$500,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$500,000
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator: 	Email: 	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
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COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2324860	Y		Cornell University
2324861	N		GA Tech Research Corporation, GA Institute of Technology
2324862	N		Harvard College, President & Fellows of Harvard University

NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) Name: Cartia Brown-Morgan Email: cbrownmo@nsf.gov Phone: (703) 292-8709	Awarding Official Name: Jannele L. Gosey Email: jgosey@nsf.gov	Managing Program Officer Name: Danella Zhao Email: dzhao@nsf.gov Phone: (703) 292-4434
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GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-532 Design for

Environmental Sustainability in Computing.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	0.40
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$7,988
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	\$184,884
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$192,872
C. Fringe Benefits	\$1,717

<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$194,589
D. Equipment	\$0
E. Travel	
Domestic	\$13,912
International	\$24,000
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$14,409
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$82,723
<i>Total Other Direct Costs (G)</i>	\$97,132
H. Total Direct Costs (A Through G)	\$329,633
I. Indirect Costs*	\$170,367
J. Total Direct and Indirect Costs (H + I)	\$500,000
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$500,000
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

Item Name	Indirect Cost Rate
MTDC On-Campus Research	69.0000%

These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG)

Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2326605

Managing Division Abbreviation: CCF

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 05/22/2024

Amendment Number: 000

Proposal Number: 2326605

Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 04/19/2024.

The term external site visitors means a committee of expertise-appropriate external researchers selected from relevant research community.

The term NSF Team means the managing PD for the project, the lead PD of Expeditions program and other NSF PDs with project relevant expertise.

1. Within one to three months after the award announcement, the PI Team must organize a one-day kick off meeting virtually/hybrid/in-person.
2. This Expeditions project will be merit reviewed with external site visitors in a site visit conducted near the end of Year 2 to assess project progress and to determine if the project warrants continued support in Years 3 through 5.
3. The project will be site visited as needed by a NSF team at the end of Year 1, Year 3, and Year 5 if external site visits were not recommended for those years by site visit report(s) from the external site visiting committee.

Funds provided for participant support may not be diverted by the awardee to other categories of expense without the prior written approval of the cognizant NSF Program Officer. Since participant support cost is not a normal account classification, the awardee organization must be able to separately identify participant support costs. It is highly recommended that separate accounts, sub-accounts, sub-task, or sub-ledgers be established to accumulate these costs. The awardee should have written policies

and procedures to segregate participant support costs.

Costs of entertainment, amusement, diversion and social activities, and any costs directly associated with such activities (such as meals, lodging, rentals, transportation and gratuities) are unallowable.

When certain meals are an integral and necessary part of a conference or meeting (i.e., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used to furnish a reasonable amount of coffee or soft drinks for conference or meeting participants and attendees during coffee breaks.

No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

AWARD INFORMATION

Award Number (FAIN): 2326605

Award Instrument: Continuing Grant

Award Date: 05/22/2024

Award Period of Performance: Start Date: 06/01/2024 End Date: 05/31/2029

Project Title: Collaborative Research: National Science Foundation Expeditions in Computing: Carbon Connect -- An Ecosystem for Sustainable Computing

Managing Division Abbreviation: CCF

Research and Development Award: Yes

Funding Opportunity: NSF 20-544 Expeditions in Computing

Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$483,709

Total Intended Award Amount: \$4,030,000

Total Approved Cost Share or Matching Amount: \$0

Total Amount Obligated to Date: \$483,709

Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2025	\$476,925
2026	\$1,015,072
2027	\$1,023,147
2028	\$1,031,147

PROJECT PERSONNEL

Principal Investigator:

Email:

Organization: PRESIDENT AND FELLOWS OF HARVARD

COLLEGE

co-Principal Investigator:

Email:

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator:

Email:

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

co-Principal Investigator:

Email:

Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE

COLLABORATIVE INFORMATION

Proposal ID	Lead	PI Name	Organization
2326605	Y		Harvard College, President & Fellows of Harvard University
2326606	N		University of Pennsylvania
2326607	N		Yale University
2326608	N		Cornell University
2326609	N		California Institute of Technology
2326610	N		Carnegie Mellon University
2326611	N		Ohio State University

NSF CONTACT INFORMATION

Managing Grants

Official (Primary Contact)

Name: Cartia Brown-Morgan

Email: cbrownmo@nsf.gov

Phone: (703) 292-8709

Awarding Official

Name: Jannele L. Gosey

Email: jgosey@nsf.gov

Managing Program Officer

Name: Mitra Basu

Email: mbasu@nsf.gov

Phone: (703) 292-8649

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 20-544 Expeditions in Computing.

BUDGET

A. Senior Personnel	
Senior Personnel Count	4.00
Senior Personnel Calendar Months	4.25
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$103,165
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	3.00
Graduate Students Amount	\$117,908
Undergraduate Students	

Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$221,073
C. Fringe Benefits	\$22,181
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$243,254
D. Equipment	\$0
E. Travel	
Domestic	\$7,500
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$55,400
<i>Total Other Direct Costs (G)</i>	\$55,400
H. Total Direct Costs (A Through G)	\$306,154
I. Indirect Costs*	\$177,555
J. Total Direct and Indirect Costs (H + I)	\$483,709
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$483,709
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2326605

Managing Division Abbreviation: CCF

Amendment Number: 002

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE STE 3 CAMBRIDGE, MA 02138-5366

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Frwd Funded

Amendment Date: 08/19/2024

Amendment Number: 002

Proposal Number: 2437154

Amendment Description:

The purpose of this amendment is to forward fund scheduled incremental funding to the award in the amount shown below in the Funding Information section.

This amendment includes funds that were originally scheduled to be released in a future fiscal year. It is still the grantee's responsibility to submit an annual project report for each year in accordance with the NSF policies.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2326605

Award Instrument: Continuing Grant

Award Date: 05/22/2024

Award Period of Performance: Start Date: 06/01/2024 End Date: 05/31/2029

Project Title: Collaborative Research: National Science Foundation Expeditions in Computing: Carbon Connect -- An Ecosystem for Sustainable Computing

Managing Division Abbreviation: CCF

Research and Development Award: Yes

Funding Opportunity: NSF 20-544 Expeditions in Computing

Assistance Listing Number(s) and Name(s): 47.070 Computer and Information Science and Engineering (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$476,925
Total Intended Award Amount: \$4,030,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$1,160,634

PROJECT PERSONNEL

Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:**
 PRESIDENT AND
 FELLOWS OF
 HARVARD COLLEGE

co-Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:**
 PRESIDENT AND
 FELLOWS OF
 HARVARD COLLEGE

co-Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:**
 PRESIDENT AND
 FELLOWS OF
 HARVARD COLLEGE

co-Principal Investigator: [REDACTED] **Email:** [REDACTED] **Organization:**
 PRESIDENT AND
 FELLOWS OF
 HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official
 (Primary Contact)
Name: Cartia Brown-Morgan
Email: cbrownmo@nsf.gov
Phone: (703) 292-8709

Awarding Official
Name: Jannele L. Gosey
Email: jgosey@nsf.gov

Managing Program Officer
Name: Sankar Basu
Email: sabasu@nsf.gov
Phone: (703) 292-7843

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 05/20/2024, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET**A. Senior Personnel**

Senior Personnel Count	4.00
Senior Personnel Calendar Months	4.25
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$106,279

B. Other Personnel**Post Doctoral Scholars**

Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0

Other Professionals

Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0

Graduate Students

Graduate Students Count	3.00
Graduate Students Amount	\$111,646

Undergraduate Students

Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0

Secretarial - Clerical

Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0

Other

Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$217,925

C. Fringe Benefits

<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$240,775
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D. Equipment

	\$0
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E. Travel	
Domestic	\$7,500
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$52,686
<i>Total Other Direct Costs (G)</i>	\$52,686
H. Total Direct Costs (A Through G)	\$300,961
I. Indirect Costs*	\$175,964
J. Total Direct and Indirect Costs (H + I)	\$476,925
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$476,925
M. Cost Sharing Proposed Level	\$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2326787

Managing Division Abbreviation: OMA

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 08/22/2023

Amendment Number: 000

Proposal Number: 2326787

Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by revised budget dated 07/13/2023.

The Foundation authorizes the awardee to enter into the proposed subaward arrangement. The subaward agreement should contain appropriate provisions in accordance with the award terms and conditions in effect at the time of this award amendment, and contain any special conditions included in this award.

Subawardee:

Massachusetts Institute of Technology

Fiscal Year 2024 and 2025 budgets have been combined in this award. It is still the grantee's responsibility to submit an annual project report in accordance with the award terms and conditions.

AWARD INFORMATION

Award Number (FAIN): 2326787

Award Instrument: Continuing Grant

Award Date: 08/22/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: QuSeC-TAQS: Quantum Sensor Networks for Metrology, Chemistry and Astrophysics

Managing Division Abbreviation: OMA

Research and Development Award: Yes

Funding Opportunity: NSF 22-630 Quantum Sensing Challenges for Transformational Advances in Quantum Systems

Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences
(Predominant source of funding for SEFA reporting), 47.079 Office of International Science and Engineering

FUNDING INFORMATION

Amount Obligated by this Amendment: \$1,175,295

Total Intended Award Amount: \$1,750,000

Total Approved Cost Share or Matching Amount: \$0

Total Amount Obligated to Date: \$1,175,295

Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

Fiscal Year	Increment Amount
2024	\$574,705

PROJECT PERSONNEL

Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

co-Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

co-Principal Investigator:

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official

(Primary Contact)

Name: Lynda Kummelt

Email: lkummelt@nsf.gov

Phone: (703) 292-7721

Awarding Official

Name: Aprile N Roberson

Email: aroberso@nsf.gov

Managing Program Officer

Name: Alexander Cronin

Email: acronin@nsf.gov

Phone: (703) 292-5302

GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended

(42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rte.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 22-630 Quantum Sensing Challenges for Transformational Advances in Quantum Systems.

BUDGET

A. Senior Personnel	
Senior Personnel Count	8.00
Senior Personnel Calendar Months	0.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	4.00
Post Doctoral Calendar Months	32.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$178,194
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	4.00
Graduate Students Amount	\$89,481
Undergraduate Students	
Undergraduate Students Count	0.00

Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$267,675
C. Fringe Benefits	\$38,312
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$305,987
D. Equipment	\$0
E. Travel	
Domestic	\$22,500
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$4,017
Publication Costs	\$5,000
Consultant Services	\$0
Computer Services	\$0
Subawards	\$547,925
Other	\$39,739
<i>Total Other Direct Costs (G)</i>	\$596,681
H. Total Direct Costs (A Through G)	\$925,168
I. Indirect Costs*	\$250,127
J. Total Direct and Indirect Costs (H + I)	\$1,175,295
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$1,175,295
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2326787

Managing Division Abbreviation: OMA

Amendment Number: 001

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: Frwd Funded

Amendment Date: 09/20/2023

Amendment Number: 001

Proposal Number: 2348124

Amendment Description:

The purpose of this amendment is to forward fund scheduled incremental funding to the award in the amount shown below in the Funding Information section.

This amendment includes funds that were originally scheduled to be released in a future fiscal year. It is still the grantee's responsibility to submit an annual project report for each year in accordance with the NSF policies.

Except as modified by this amendment, the award conditions remain unchanged.

AWARD INFORMATION

Award Number (FAIN): 2326787

Award Instrument: Continuing Grant

Award Date: 08/22/2023

Award Period of Performance: Start Date: 09/01/2023 End Date: 08/31/2026

Project Title: QuSeC-TAQS: Quantum Sensor Networks for Metrology, Chemistry and Astrophysics

Managing Division Abbreviation: OMA

Research and Development Award: Yes

Funding Opportunity: NSF 22-630 Quantum Sensing Challenges for Transformational Advances in Quantum Systems

Assistance Listing Number(s) and Name(s): 47.049 Mathematical and Physical Sciences (See Amendment 000 for source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$574,705
Total Intended Award Amount: \$1,750,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$1,750,000

PROJECT PERSONNEL**Principal Investigator:**

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE**co-Principal Investigator:**

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE**co-Principal Investigator:**

[REDACTED]

Email:

[REDACTED]

Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE**NSF CONTACT INFORMATION****Managing Grants Official**
(Primary Contact)**Name:** Lynda Kummelt**Email:** lkummelt@nsf.gov**Phone:** (703) 292-7721**Awarding Official****Name:** Lynda Kummelt**Email:** lkummelt@nsf.gov**Managing Program
Officer****Name:** Alexander Cronin**Email:** acronin@nsf.gov**Phone:** (703) 292-5302**GENERAL TERMS AND CONDITIONS**

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at [https://www.nsf.gov/awards/managing/rtc.jsp](https://www.nsf.gov/awards/managing rtc.jsp).

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	0.00
Senior Personnel Calendar	0.00

Months	
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$0
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	200.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	14.50
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$84,330
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	2.00
Graduate Students Amount	\$46,764
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$131,094
C. Fringe Benefits	\$18,131
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$149,225
D. Equipment	\$0
E. Travel	
Domestic	\$10,250
International	\$0
F. Participant Support Costs	
Participant Support Costs	\$0

Stipends	
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$1,118
Publication Costs	\$1,500
Consultant Services	\$0
Computer Services	\$0
Subawards	\$280,000
Other	\$20,768
<i>Total Other Direct Costs (G)</i>	\$303,386
H. Total Direct Costs (A Through G)	\$462,861
I. Indirect Costs*	\$111,844
J. Total Direct and Indirect Costs (H + I)	\$574,705
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$574,705
M. Cost Sharing Proposed Level	\$0

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2327447

Managing Division Abbreviation: DGE

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 09/11/2023

Amendment Number: 000

Proposal Number: 2327447

Amendment Description:

The National Science Foundation hereby awards a Standard Grant for support of the project described in the proposal referenced above as modified by revised budget dated 06/23/2023, and email dated 06/19/2023 and cover sheet dated 06/23/2023.

It is the grantee's responsibility to ensure that any human subjects work conducted under this award has an Institutional Review Board (IRB) approval, where required, and that such approval remains valid at all times that human subjects work is conducted under the award. Failure to comply with this condition will result in suspension and/or termination of the award.

Incentive payments or gifts to participants must be made in accordance with written institutional policies and procedures and supported by auditable documentation. The allowability of these costs will ultimately be based on the awardee institution's ability to adequately demonstrate that the incentives have been disbursed in accordance with its policies and procedures.

The indirect cost rate(s) for this award is 69%. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

Please disregard the below section on *Indirect Cost Rates.

AWARD INFORMATION

Award Number (FAIN): 2327447
Award Instrument: Standard Grant
Award Date: 09/11/2023
Award Period of Performance: Start Date: 09/15/2023 End Date: 08/31/2025
Project Title: When Teachers "Aren't There": Detecting, Evaluating, and Learning from Rote Teaching Across Development
Managing Division Abbreviation: DGE
Research and Development Award: Yes
Funding Opportunity: NSF 23-544 Science, Technology, Engineering and Mathematics (STEM) Education Individual Postdoctoral Research Fellowships
Assistance Listing Number(s) and Name(s): 47.076 Education and Human Resources (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$338,170
Total Intended Award Amount: \$338,170
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$338,170
Expenditure Limitation: Not Applicable

PROJECT PERSONNEL

Principal Investigator 		Email: 	Organization: PRESIDENT AND FELLOWS OF HARVARD COLLEGE
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NSF CONTACT INFORMATION

Managing Grants Official (Primary Contact) Name: Denise M. Martin Email: dmartin@nsf.gov Phone: (703) 292-4808	Awarding Official Name: Denise M. Martin Email: dmartin@nsf.gov	Managing Program Officer Name: Eric Knuth Email: eknuth@nsf.gov Phone:
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GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

This award is made in accordance with the provisions of NSF Solicitation: NSF 23-544 Science, Technology, Engineering and Mathematics (STEM) Education Individual Postdoctoral Research Fellowships.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	24.00
Senior Personnel Academic Months	0.00
Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$140,000
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	0.00
Post Doctoral Calendar Months	0.00
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$0
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	0.00
Graduate Students Amount	\$0
Undergraduate Students	
Undergraduate Students Count	4.00
Undergraduate Students Amount	\$14,572
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0

<i>Total Salaries and Wages (A+B)</i>	\$154,572
C. Fringe Benefits	\$31,528
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$186,100
D. Equipment	\$0
E. Travel	
Domestic	\$8,000
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0
Participant Support Costs Subsistence	\$0
Participant Support Costs Other	\$0
Total Number of Participants	0.00
<i>Total Participant Costs (F)</i>	\$0
G. Other Direct Costs	
Materials Supplies	\$0
Publication Costs	\$0
Consultant Services	\$0
Computer Services	\$0
Subawards	\$0
Other	\$6,000
<i>Total Other Direct Costs (G)</i>	\$6,000
H. Total Direct Costs (A Through G)	\$200,100
I. Indirect Costs*	\$138,070
J. Total Direct and Indirect Costs (H + I)	\$338,170
K. Fees	\$0
L. Total Amount of Request (J) OR (J + K)	\$338,170
M. Cost Sharing Proposed Level	\$0

*Indirect Cost Rates

The indirect cost rate(s) for this award is/are not available. These rates are at the time of award and are based upon the budget submitted to the NSF. It does not include any out-year adjustments. The NSF will not modify awards simply to correct indirect cost rates cited in the award notice. See the Proposal & Award Policies & Procedures Guide (PAPPG) Chapter X.A.3.a. for guidance on re-budgeting authority.

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2331228

Managing Division Abbreviation: IOS

Amendment Number: 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): PRESIDENT AND FELLOWS OF HARVARD COLLEGE

Recipient Address: 1033 MASSACHUSETTS AVE 5TH FL CAMBRIDGE, MA 02138-5369

Official Recipient Email Address: [REDACTED]

Unique Entity Identifier (UEI): LN53LCFJFL45

AMENDMENT INFORMATION

Amendment Type: New Project

Amendment Date: 08/04/2023

Amendment Number: 000

Proposal Number: 2331228

Amendment Description:

The National Science Foundation hereby awards a Continuing Grant for support of the project described in the proposal referenced above as modified by email dated 07/27/2023.

AWARD INFORMATION

Award Number (FAIN): 2331228

Award Instrument: Continuing Grant

Award Date: 08/04/2023

Award Period of Performance: Start Date: 08/15/2023 End Date: 07/31/2025

Project Title: EAGER: Identifying the genetic determinants of plasmid-dependent phage host range

Managing Division Abbreviation: IOS

Research and Development Award: Yes

Funding Opportunity: NSF 23-1 Proposal & Award Policies & Procedures Guide - PAPPG

Assistance Listing Number(s) and Name(s): 47.074 Biological Sciences (Predominant source of funding for SEFA reporting)

FUNDING INFORMATION

Amount Obligated by this Amendment: \$150,000

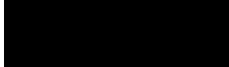
Total Intended Award Amount: \$300,000
Total Approved Cost Share or Matching Amount: \$0
Total Amount Obligated to Date: \$150,000
Expenditure Limitation: Not Applicable

Contingent on the availability of funds and scientific progress of the project, NSF expects to continue support at approximately the following level:

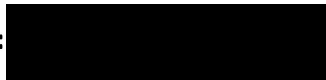
Fiscal Year	Increment Amount
2024	\$150,000

PROJECT PERSONNEL

Principal Investigator:



Email:



Organization: PRESIDENT
AND FELLOWS OF
HARVARD COLLEGE

NSF CONTACT INFORMATION

Managing Grants Official

(Primary Contact)

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GENERAL TERMS AND CONDITIONS

This is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTCs) dated 11/12/2020, and NSF Agency Specific Requirements, dated 01/30/2023, available at <https://www.nsf.gov/awards/managing/rtc.jsp>.

This institution is a signatory to the Federal Demonstration Partnership (FDP) Phase VI Agreement which requires active institutional participation in new or ongoing FDP demonstrations and pilots.

BUDGET

A. Senior Personnel	
Senior Personnel Count	1.00
Senior Personnel Calendar Months	1.20
Senior Personnel Academic Months	0.00

Senior Personnel Summer Months	0.00
Senior Personnel Amount	\$15,884
B. Other Personnel	
Post Doctoral Scholars	
Post Doctoral Count	1.00
Post Doctoral Calendar Months	4.80
Post Doctoral Academic Months	0.00
Post Doctoral Summer Months	0.00
Post Doctoral Amount	\$27,600
Other Professionals	
Other Professionals Count	0.00
Other Professionals Calendar Months	0.00
Other Professionals Academic Months	0.00
Other Professionals Summer Months	0.00
Other Professionals Amount	\$0
Graduate Students	
Graduate Students Count	1.00
Graduate Students Amount	\$21,292
Undergraduate Students	
Undergraduate Students Count	0.00
Undergraduate Students Amount	\$0
Secretarial - Clerical	
Secretarial - Clerical Count	0.00
Secretarial - Clerical Amount	\$0
Other	
Other Count	0.00
Other Amount	\$0
<i>Total Salaries and Wages (A+B)</i>	\$64,776
C. Fringe Benefits	\$9,219
<i>Total Salaries, Wages, Fringe Benefits (A + B + C)</i>	\$73,995
D. Equipment	\$0
E. Travel	
Domestic	\$0
International	\$0
F. Participant Support Costs	
Participant Support Costs Stipends	\$0
Participant Support Costs Travel	\$0